

Notice of Allowability

Application No.

10/701,017

Examiner

Thanh Tammy Nguyen

Applicant(s)

NAG, SIDDHARTHA

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to March 26, 2007.
2. ☒ The allowed claim(s) is/are 1, 4-17 (new claims 1-15).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date See Continuation Sheet
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

/Thanh Tammy Nguyen/
Primary Examiner, Art Unit 2144

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 9/2/04, 10/19/07, 12/23/03.



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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Martin Wojcik on June 3rd and 4th 2008.

3. The applicant has been amended as follow:

1. (Currently Amended) A method comprising:
reserving a Quality of Service (QoS) resource pool, wherein the QoS resource pool comprises a predetermined portion of available bandwidth between a first reservation protocol proxy and a second reservation protocol proxy, wherein the first reservation proxy represents a first network device coupled in communication with a packet network and associated with a first user community, ~~said first network device represented by said first reservation protocol proxy,~~ wherein the second reservation proxy represents ~~and~~ a second network device coupled in communication with the packet network and associated with a second user community for real-

time communication sessions among users of the first user community and the second user community, ~~said second network device represented by said second reservation protocol proxy;~~
and

providing end-to-end application QoS between the first user community and the second user community by selectively admitting a plurality of real-time communication sessions between the first user community and the second user community based upon currently available resources associated with the QoS resource pool and multiplexing the plurality of real-time communication sessions over a common reservation protocol session between the first reservation proxy and the second reservation proxy;

wherein said reserving a predetermined portion of available bandwidth between the first reservation protocol proxy and the second reservation protocol proxy includes pre-allocating the reservation protocol session over a path through the packet network between the first network device and the second network device; and

wherein the reservation protocol session comprises a Resource Reservation Protocol (RSVP) session, wherein the first network device and the second network device are part of a geographically distributed VoIP network, wherein the packet network comprises the VoIP network.

Claims 2-3 - Cancelled.

4. (Currently Amended) The method of claim 1 [[3]], wherein at least one of the plurality of real-time communication sessions includes a H.323 session and a Real-time Transport Protocol (RTP) session.

5. (Original) The method of claim 1,
wherein the first user community and the second user community comprise subscribers to
a long distance carrier.

6. (Original) The method of claim 1,
wherein the first user community and the second user community comprise employees of
an enterprise at a first geographic location and a second geographic location, respectively.

7. (Original) The method of claim 1,
wherein the packet network comprises the Internet.

8. (Original) The method of claim 1, wherein:
a first local network supporting the first user community comprises Internet Protocol (IP)
telephony products of a first vendor which are in communication with a first IP private branch
exchange (PBX) call management agent; and

a second local network supporting the second user community comprises IP telephony
products of a second vendor which are in communication with a second IP PBX call
management agent.

9. (Original) The method of claim 1, wherein the plurality of real-time communication
sessions comprise voice over IP (VoIP) calls carrying voice or voice-band data.

10. (Currently Amended) A method comprising:

establishing an aggregated reservation protocol session over a path between a first reservation protocol proxy and a second reservation protocol proxy, ~~and~~ wherein the first reservation proxy represents a first device coupled to a public Internet Protocol (IP) network, represented by said first reservation protocol proxy wherein the second reservation proxy represents ~~and a second device coupled to the public IP network represented by said second reservation protocol proxy; and~~

providing end-to-end Quality of Service (QoS) on behalf of users of a distributed voice over IP environment by (i) selectively admitting a plurality of VoIP calls between those of the users associated with a first user community that access the public IP network via the first device and those of the users associated with a second user community that access the public IP network via the second device based on resources associated with the aggregated reservation protocol session and a desired level of service and (ii) multiplexing the plurality of VoIP calls onto the aggregated reservation protocol session;

wherein said establishing the aggregated reservation protocol session between the first reservation protocol proxy and the second reservation protocol proxy includes establishing the aggregated reservation protocol session over a path through the public IP network between the first device and the second device; and

wherein the reservation protocol session comprises a Resource Reservation Protocol (RSVP) session, wherein the first device and the second device are part of a geographically distributed VoIP network, wherein the public IP network comprises the VoIP network.

11. (Currently Amended) A method comprising:

establishing a Resource Reservation Protocol (RSVP) session between a first network device and a second network device that are part of a geographically distributed enterprise voice over Internet Protocol (VoIP) network, wherein said establishing the RSVP session between the first network device and the second network device includes establishing the aggregated reservation protocol session over a path through the VoIP network between the first network device and the second network device;

receiving, at the first network device from a first local terminal, a request to initiate a first VoIP call with a first remote terminal associated with the second network device;

allocating a portion of pre-allocated resources associated with the RSVP session to the first VoIP call between the first local terminal and the first remote terminal;

receiving, at the first network device from a second local terminal, a request to initiate a second VoIP call with a second remote terminal associated with the second network device;

allocating a portion of the pre-allocated resources associated with the RSVP session to the second VoIP call between the second local terminal and the second remote terminal; and

providing a desired level of Quality of Service (QoS) to both the first VoIP call and the second VoIP call by sharing the RSVP session between the first VoIP call and the second VoIP call by multiplexing packets containing voice or voice-band data associated with the first and second VoIP calls onto the RSVP session.

12. (Original) The method of claim 11, further comprising: transmitting packets from the first local terminal and first remote terminal by forming an encapsulated packet at the first

network device that includes tag information to allow the second network device to determine the packets are intended for the first remote terminal; and removing the tag information at the second network device prior to forwarding the packets to the first remote terminal.

13. (Original) The method of claim 12, wherein the tag information includes the IP address of the first local terminal.

14. (Original) The method of claim 12, wherein the tag information includes the IP address of the first remote terminal.

15. (Original) The method of claim 12, wherein the tag information includes a packet type indicator that specifies how to further identify a subprocess within the first remote terminal.

16. (Original) The method of claim 11 wherein the first local terminal and the first remote terminal comprise IP phones.

17. (Original) The method of claim 11 wherein the first local terminal and the first remote terminal comprise computer systems running an Internet telephony application.

18. Cancelled.

4. The following is an examiner's statement of reasons for allowance:

With respect to claims 1, and 4-17, the prior art of record, individually or in combination, fails to

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teach, suggest or render obvious the claimed invention in combination with specific amended limitations as recited in claims 1, 10, and 11. Specially, inter alias, the prior art of the record fails to teach or suggest in reserving a Quality of Service (QoS) resource pool, wherein the QoS resource pool comprises a predetermined portion of available bandwidth between a first reservation protocol proxy and a second reservation protocol proxy, wherein the first reservation proxy represents a first network device coupled in communication with a packet network and associated with a first user community, wherein the second reservation proxy represents a second network device coupled in communication with the packet network and associated with a second user community for real-time communication sessions among users of the first user community and the second user community; and providing end-to-end application QoS between the first user community and the second user community by selectively admitting a plurality of real-time communication sessions between the first user community and the second user community based upon currently available resources associated with the QoS resource pool and multiplexing the plurality of real-time communication sessions over a common reservation protocol session between the first reservation proxy and the second reservation proxy; wherein said reserving a predetermined portion of available bandwidth between the first reservation protocol proxy and the second reservation protocol proxy includes pre-allocating the reservation protocol session over a path through the packet network between the first network device and the second network device and establishing the aggregated reservation protocol session over a path through the public IP network between the first device and the second device (as disclosed in specification paragraphs 0048, 0052, 0060-0069, 0074).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee, and avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reason for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammy T. Nguyen whose telephone number is 571-272- 3929. The examiner can normally be reached on Monday - Friday 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **William Vaughn** can be reached on 571-272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thanh Tammy Nguyen/

Primary Examiner, Art Unit 2144

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